

SEQUENCE LISTING

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AYYOUB, Maha
PINILLA, Clemencia

<120> Isolated, SSX-2 and SSX-2 Related Peptides Useful as HLA Binders and CTL Epitopes, and Uses Thereof

<130> LUD 5739 PCT

<140> PCT/US2003/023306
<141> 2003-07-23

<150> 60/400,076
<151> 2002-07-31

<160> 116

<170> PatentIn version 3.2

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Phe Leu Trp Gly Pro Arg Ala Leu Val
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Val Arg Ile Gly His Leu Tyr Ile Leu
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Tyr Leu Gln Leu Val Phe Gly Ile Glu Val
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Phe Leu Trp Gly Pro Arg Ala Leu Val
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Gly Leu Tyr Asp Gly Met Glu His Leu
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Met Glu Val Asp Pro Ile Gly His Leu Tyr
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Glu Val Asp Pro Ile Gly His Leu Tyr
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Ile Met Pro Lys Ala Gly Leu Leu Ile
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Glu Val Asp Pro Ile Gly His Leu Tyr
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Gly Val Tyr Asp Gly Arg Glu His Thr Val
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Glu Ala Asp Pro Thr Gly His Ser Tyr
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Ser Glu Ile Trp Arg Asp Ile Asp Phe
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Leu Pro Ser Ser Ala Asp Val Glu Phe
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Ser Ala Tyr Gly Glu Pro Arg Lys Leu
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Tyr Arg Pro Arg Pro Arg Arg Tyr
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Leu Ala Met Pro Phe Ala Thr Pro Met
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Ala Arg Gly Pro Glu Ser Arg Leu Leu
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Tyr Tyr Trp Pro Arg Pro Arg Arg Tyr
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Ala Ala Arg Ala Val Phe Leu Ala Leu
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Thr Gln His Phe Val Gln Glu Asn Tyr Leu Glu Tyr
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Ser Leu Leu Met Trp Ile Thr Gln Cys Phe Leu
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Ala Glu Leu Val His Phe Leu Leu Lys Tyr Arg Ala Arg
1 5 10

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Leu Leu Lys Tyr Arg Ala Arg Glu Pro Val Thr Lys Ala Glu
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Ala Glu Leu Val His Phe Leu Leu Lys Tyr Arg Ala Arg
1 5 10

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Glu Tyr Val Ile Lys Val Ser Ala Arg Val Arg Phe
1 5 10

<210> 56
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Leu Leu Lys Tyr Arg Ala Arg Glu Pro Val Thr Lys Ala Glu
1 5 10

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Pro Gly Val Leu Leu Lys Glu Phe Thr Val Ser Gly Asn Ile Leu Thr
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Ile Arg Leu Thr
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Ala Ala Asp His Arg Gln Leu Gln Leu Ser Ile Ser Ser Cys Leu Gln
1 5 10 15
Gln Leu

<210> 59
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Tyr at position 8
<400> 59

Ala Ala Ala Pro Lys Gln Phe Leu Ala
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<210> 60
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<212> PRT
<213> Artificial
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<400> 60

Ala Ala Ser Pro Lys Ser Phe Thr Leu
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<210> 61
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<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or Tyr at position 8
<400> 61

Val Ser Ala Pro Lys Val Phe Gln Ala
1 5

<210> 62
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<213> Artificial
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<400> 62

Ile Ala Ser Pro Lys Ala Thr Tyr Val
1 5

<210> 63
<211> 9
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<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or Tyr at position 8
<400> 63

Val Ser Ala Pro Lys Ile Phe Gln Ala
1 5

<210> 64
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<212> PRT
<213> Artificial
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<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or Tyr at position 8
<400> 64

Asn Ser Leu Pro Lys Val Ala Tyr Ala
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<210> 65
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<400> 65

Ala Ser Leu Pro Lys Val Ser Tyr Val
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<210> 66
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<400> 66

Lys Ala Glu Pro Lys Ala Pro Tyr Ala
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<210> 67
<211> 9
<212> PRT
<213> Artificial
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<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or Tyr at position 8
<400> 67

His Ser Leu Pro Lys Val Ser Tyr Ala
1 5

<210> 68
<211> 9
<212> PRT
<213> Artificial
<220>
<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or Tyr at position 8
<400> 68

Thr Ala Ser Pro Lys Glu Phe Tyr Ala
1 5

<210> 69

<211> 9
<212> PRT
<213> Artificial
<220>
<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or Tyr at position 8
<400> 69

Ala Ser Val Pro Lys Glu Leu Tyr Leu
1 5

<210> 70
<211> 9
<212> PRT
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<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or Tyr at position 8
<400> 70

Ser Pro Asp Pro Lys Ile Cys Tyr Val
1 5

<210> 71
<211> 9
<212> PRT
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<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or Tyr at position 8
<400> 71

Val Ala Glu Pro Lys Glu Ser Tyr Val
1 5

<210> 72
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<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or Tyr at position 8
<400> 72

Ile Ser Ala Pro Lys Ile Phe Arg Val
1 5

<210> 73
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<212> PRT
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<223> Peptides with nine amino acids wherein two of the following

criteria in is satisfied: Lys at position 5; Phe at position 7; or
Tyr at position 8
<400> 73

Ala Val Tyr Pro Lys Ile Phe Tyr Val
1 5 .

<210> 74
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Tyr at position 8
<400> 74

Lys Ala Ser Glu Lys Ile Ile Tyr Val
1 5

<210> 75
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Tyr at position 8
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Val Gln Asp Pro Lys Val Thr Tyr Leu
1 5

<210> 76
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<223> Peptides with nine amino acids wherein two of the following
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Tyr at position 8
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Cys Pro Val Pro Lys Ile Phe Tyr Val
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<210> 77
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Tyr at position 8
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Phe Ala Lys Pro Lys Ile Thr Tyr Val

<210> 78
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<400> 78

Gln Thr Pro Pro Lys Ile Asp Tyr Leu
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<210> 79
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<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or Tyr at position 8
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Leu Arg Ser Pro Lys Leu Phe Tyr Ala
1 5

<210> 80
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<212> PRT
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<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or Tyr at position 8
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Lys Tyr Ser Glu Lys Ile Ser Tyr Val
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<210> 81
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<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or Tyr at position 8
<400> 81

Glu Gln Lys Pro Lys Asp Phe Tyr Ala
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<210> 82
<211> 9

<212> PRT
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<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or Tyr at position 8
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Arg Thr Thr Pro Lys Asp Phe Tyr Val
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<210> 83
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<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or Tyr at position 8
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Arg Ala Asp Pro Lys His Lys Tyr Leu
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<210> 84
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<212> PRT
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<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or Tyr at position 8
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Lys Arg Gly Trp Lys Thr Phe Tyr Ala
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<210> 85
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<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or Tyr at position 8
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Thr Ser Ser Trp Lys Lys Phe Tyr Leu
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<210> 86
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<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or

Tyr at position 8
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Leu Ser Arg Pro Lys Arg Phe Tyr Leu
1 5

<210> 87

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<212> PRT

<213> Artificial

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<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or Tyr at position 8

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Asn Thr Tyr Pro Lys Gly Phe Tyr Cys
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<210> 88

<211> 9

<212> PRT

<213> Artificial

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<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or Tyr at position 8

<400> 88

Ser Lys Leu Pro Lys Asp Phe Tyr Asp
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<210> 89

<211> 9

<212> PRT

<213> Artificial

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<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or Tyr at position 8

<400> 89

Ala Leu Ser Pro Lys Glu Phe Tyr Glu
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<210> 90

<211> 9

<212> PRT

<213> Artificial

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<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or Tyr at position 8

<400> 90

Lys Val Asp Pro Lys Pro Phe Tyr Glu
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<210> 91
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<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or Tyr at position 8
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Val Gly Ser Glu Lys Leu Phe Tyr Glu
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<210> 92
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<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or Tyr at position 8
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Leu Met Thr Pro Lys Gln Met Tyr Glu
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<210> 93
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<212> PRT
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<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or Tyr at position 8
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Lys Asn Lys Pro Lys Met Asn Tyr Glu
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<210> 94
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<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or Tyr at position 8
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Val Arg Gly Pro Lys Tyr Phe Tyr Gly
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<210> 95
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Ala Ala Thr Pro Lys Ile Phe Asn Gly
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<210> 96
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<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or Tyr at position 8
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Trp Gly Glu Pro Lys Thr Trp Tyr Gly
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<210> 97
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<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or Tyr at position 8
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Val Gly Leu Lys Lys Ser Phe Tyr Gly
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<210> 98
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<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or Tyr at position 8
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Leu Ala Asn Pro Lys Glu Phe Tyr His
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<210> 99
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<212> PRT
<213> Artificial
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<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or Tyr at position 8

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Ala Ser Ser Pro Lys Val Ala Tyr His
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<210> 100

<211> 9

<212> PRT

<213> Artificial

<220>

<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or Tyr at position 8

<400> 100

Gln Tyr Thr Pro Lys Ala Lys Tyr His
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<210> 101

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<212> PRT

<213> Artificial

<220>

<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or Tyr at position 8

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Gln Thr Gly Pro Lys Ser Thr Tyr Ile
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<210> 102

<211> 9

<212> PRT

<213> Artificial

<220>

<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or Tyr at position 8

<400> 102

Ser Met Asp Pro Lys Arg Phe Tyr Lys
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<210> 103

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<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or Tyr at position 8

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Gly Ile Thr Pro Lys Gly Phe Tyr Lys
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<210> 104
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Arg Leu Val Pro Lys Leu Phe Tyr Lys
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<210> 105
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Pro Ser Ser Pro Lys Val Thr Tyr Lys
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<210> 106
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Glu Asp Glu Tyr Lys Ala Phe Tyr Lys
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<210> 107
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Thr Leu Gly Pro Lys Ile Thr Tyr Gln
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<210> 108
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<213> Artificial

<220>
<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or Tyr at position 8
<400> 108

Glu Lys Glu Gly Lys Pro Phe Tyr Gln
1 5

<210> 109
<211> 9
<212> PRT
<213> Artificial
<220>
<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or Tyr at position 8
<400> 109

Val Ala Gln Pro Lys Glu Val Tyr Arg
1 5

<210> 110
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<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or Tyr at position 8
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Glu Ala Gly Pro Pro Ala Phe Tyr Arg
1 5

<210> 111
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<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or Tyr at position 8
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Gln Ile Asn Pro Lys Cys Phe Tyr Thr
1 5

<210> 112
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<400> 112

Asp Ile Pro Pro Lys Phe Phe Tyr Thr
1 5

<210> 113

<211> 9

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Asp Asp Asn Pro Lys Thr Phe Tyr Trp
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<210> 114

<211> 9

<212> PRT

<213> Artificial

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<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or Tyr at position 8

<400> 114

Asp Ala Val Pro Lys Ile Glu Tyr Tyr
1 5

<210> 115

<211> 9

<212> PRT

<213> Artificial

<220>

<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or Tyr at position 8

<400> 115

Val Ile His Glu Lys Gly Phe Tyr Tyr
1 5

<210> 116

<211> 9

<212> PRT

<213> Artificial

<220>

<223> Peptides with nine amino acids wherein two of the following criteria in is satisfied: Lys at position 5; Phe at position 7; or Tyr at position 8

<400> 116

Gly Ile Leu Gly Phe Val Phe Thr Leu
1 5